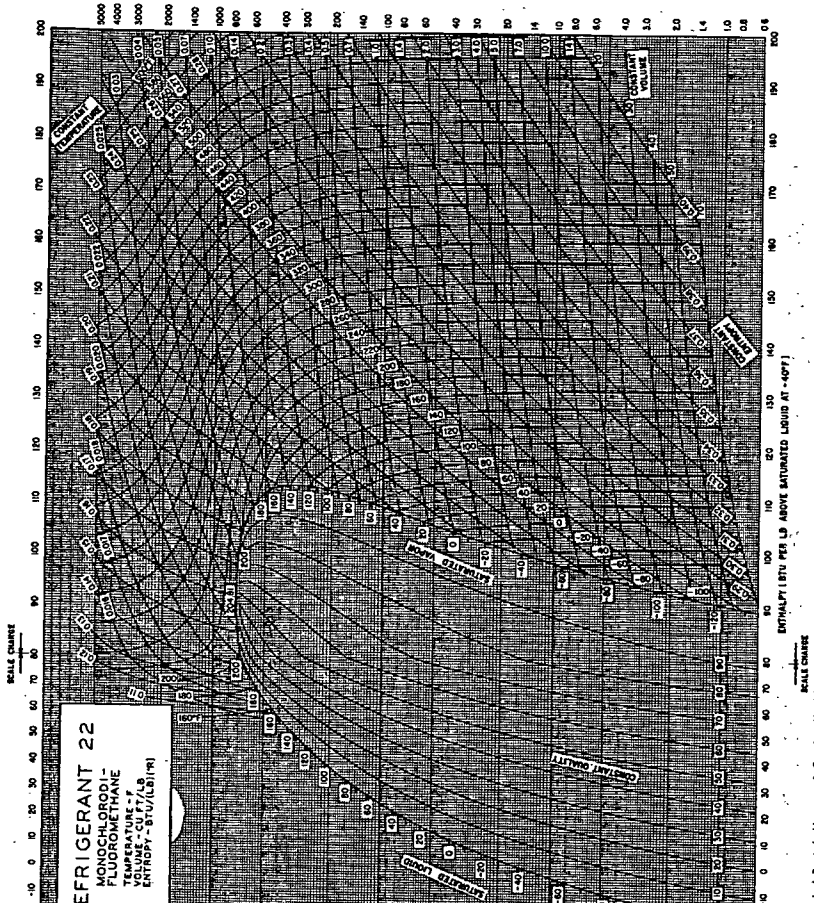

Fig. 6.... Pressure-Enthalpy Diagram for Refrigerant 22

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Table 9 .... Refrigerant 22 (Monochlorodifluoromethane) Properties of Liquid and Saturated Vapor*

Temp F	Pressure psia	Pressure psig	Volume cu ft/lb Vapor v_g	Density lb/cu ft Liquid $1/v_f$	Enthalpy** Btu/lb Liquid h_f	Enthalpy** Btu/lb Vapor h_g	Entropy** Btu/(lb) (°R) Liquid s_f	Entropy** Btu/(lb) (°R) Vapor s_g
−150	0.27163	29.35816*	141.23	98.235	−25.974	87.521	−0.07147	0.29501
−145	0.34999	29.20981*	111.84	97.800	−24.851	88.100	−0.06787	0.29106
−140	0.44692	29.01126*	89.522	97.363	−23.725	88.681	−0.06433	0.28720
−135	0.56594	28.76914*	70.981	96.922	−22.596	89.263	−0.06082	0.28369
−130	0.71050	28.47441*	57.356	96.480	−21.463	89.845	−0.05736	0.28027
−125	0.88551	28.11829*	46.692	96.034	−20.326	90.432	−0.05394	0.27700
−120	1.0934	27.6910*	38.280	93.587	−19.185	91.020	−0.05055	0.27385
−115	1.3455	27.1818*	31.594	93.137	−18.038	91.608	−0.04720	0.27090
−110	1.6417	26.5738*	26.242	94.684	−16.886	92.196	−0.04389	0.26805
−105	1.9903	25.8689*	21.930	94.228	−15.728	92.783	−0.04060	0.26533
−100	2.3983	25.0333*	18.433	93.770	−14.564	93.371	−0.03734	0.26274
−98	2.5798	24.6683*	17.222	93.587	−14.097	93.606	−0.03605	0.26178
−96	2.7724	24.2765*	16.104	93.401	−13.628	93.840	−0.03476	0.26074
−94	2.9768	23.8604*	15.072	93.215	−13.158	94.075	−0.03347	0.25977
−92	3.1934	23.4193*	14.118	93.030	−12.688	94.309	−0.03219	0.25881
−90	3.4229	22.9522*	13.235	92.843	−12.216	94.544	−0.03091	0.25787
−88	3.6657	22.4579*	12.417	92.657	−11.742	94.777	−0.02963	0.25695
−86	3.9224	21.9353*	11.653	92.469	−11.263	95.011	−0.02836	0.25604
−84	4.1936	21.3833*	10.955	92.279	−10.783	95.245	−0.02709	0.25515
−82	4.4800	20.7998*	10.302	92.093	−10.316	95.478	−0.02583	0.25428
−80	4.7822	20.1846*	9.6949	91.905	− 9.838	95.710	−0.02457	0.25342
−78	5.1007	19.5361*	9.1301	91.715	− 9.359	95.943	−0.02331	0.25257
−76	5.4363	18.8525*	8.6043	91.525	− 8.878	96.175	−0.02206	0.25174
−74	5.7896	18.1334*	8.1145	91.334	− 8.397	96.406	−0.02081	0.25092
−72	6.1614	17.3766*	7.6579	91.144	− 7.914	96.637	−0.01956	0.25012
−70	6.5522	16.5809*	7.2318	90.952	− 7.429	96.868	−0.01832	0.24932
−68	6.9628	15.7449*	6.8339	90.760	− 6.944	97.098	−0.01708	0.24855
−66	7.3939	14.8671*	6.4621	90.563	− 6.457	97.328	−0.01584	0.24778
−64	7.8463	13.9460*	6.1144	90.374	− 5.968	97.557	−0.01460	0.24703
−62	8.3208	12.9800*	5.7891	90.180	− 5.479	97.786	−0.01337	0.24629
−60	8.8180	11.9677*	5.4844	89.986	− 4.987	98.014	−0.01214	0.24556
−58	9.3388	10.9074*	5.1989	89.791	− 4.495	98.241	−0.01092	0.24484
−56	9.8839	9.7975*	4.9312	89.595	− 4.001	98.468	−0.00969	0.24414
−54	10.454	8.9359*	4.6799	89.399	− 3.506	98.694	−0.00847	0.24345
−52	11.051	7.472*	4.4440	89.202	− 3.009	98.920	−0.00725	0.24276
−50	11.674	6.154*	4.2224	89.004	− 2.511	99.144	−0.00604	0.24209
−48	12.324	4.839*	4.0140	88.806	− 2.012	99.369	−0.00483	0.24143
−46	13.004	3.445*	3.8179	88.607	− 1.511	99.592	−0.00361	0.24078
−44	13.712	2.002*	3.6334	88.407	− 1.009	99.814	−0.00241	0.24014
−42	14.451	0.498*	3.4596	88.207	− 0.505	100.036	−0.00120	0.23951
−40	15.222	0.526	3.2957	88.006	0.000	100.257	0.00000	0.23888
−38	16.024	1.328	3.1412	87.805	0.506	100.477	0.00120	0.23827
−36	16.859	2.163	2.9954	87.602	1.014	100.696	0.00240	0.23767
−34	17.728	3.032	2.8578	87.399	1.524	100.914	0.00359	0.23707
−32	18.633	3.937	2.7278	87.195	2.035	101.132	0.00479	0.23649
−30	19.573	4.877	2.6049	86.991	2.547	101.348	0.00598	0.23591
−28	20.549	5.853	2.4887	86.785	3.061	101.564	0.00716	0.23534
−26	21.564	6.868	2.3787	86.579	3.576	101.778	0.00835	0.23478
−24	22.617	7.921	2.2746	86.372	4.093	101.992	0.00953	0.23423
−22	23.711	9.015	2.1760	86.165	4.611	102.204	0.01072	0.23369
−20	24.845	10.149	2.0826	85.958	5.131	102.416	0.01189	0.23316
−18	26.020	11.324	1.9940	85.747	5.652	102.626	0.01307	0.23262
−16	27.239	12.543	1.9099	85.537	6.175	102.835	0.01425	0.23210
−14	28.501	13.805	1.8302	85.326	6.699	103.043	0.01542	0.23159
−12	29.809	15.113	1.7544	85.113	7.224	103.250	0.01659	0.23108
−10	31.162	16.466	1.6823	84.901	7.751	103.455	0.01776	0.23058
− 8	32.563	17.867	1.6141	84.688	8.280	103.660	0.01892	0.23006
− 6	34.012	19.316	1.5491	84.473	8.810	103.863	0.02009	0.22956
− 4	35.509	20.813	1.4872	84.258	9.341	104.065	0.02125	0.22912
− 2	37.057	22.361	1.4283	84.042	9.874	104.266	0.00241	0.22864
0	38.657	23.961	1.3723	83.825	10.409	104.465	0.02357	0.22817
2	40.309	25.613	1.3189	83.606	10.945	104.663	0.02473	0.22771
4	42.014	27.318	1.2680	83.387	11.483	104.860	0.02587	0.22725
6	43.775	29.079	1.2195	83.167	12.022	105.056	0.02703	0.22680
8	45.591	30.895	1.1732	82.946	12.562	105.250	0.02818	0.22636
10	47.464	32.768	1.1290	82.724	13.104	105.442	0.02932	0.22592
12	49.396	34.700	1.0869	82.501	13.648	105.633	0.03047	0.22548
14	51.387	36.691	1.0466	82.276	14.193	105.823	0.03161	0.22505
16	53.442	38.742	1.0082	82.051	14.739	106.011	0.03275	0.22463
18	55.551	40.855	0.97144	81.825	15.288	106.198	0.03389	0.22421
20	57.727	43.031	0.93631	81.597	15.837	106.383	0.03503	0.22379
22	59.967	45.271	0.90270	81.368	16.389	106.566	0.03617	0.22338
24	62.272	47.576	0.87056	81.138	16.942	106.748	0.03730	0.22297
26	64.644	49.948	0.83978	80.907	17.496	106.928	0.03844	0.22257
28	67.083	52.387	0.81031	80.675	18.052	107.107	0.03958	0.22217
30	69.591	54.895	0.78206	80.441	18.609	107.284	0.04070	0.22178
32	72.169	57.473	0.75508	80.207	19.169	107.459	0.04182	0.22139
34	74.818	60.122	0.72911	79.971	19.729	107.632	0.04295	0.22100
36	77.540	62.844	0.70425	79.733	20.292	107.804	0.04407	0.22062
38	80.336	65.640	0.68041	79.495	20.856	107.974	0.04620	0.22024
40	83.206	68.510	0.65752	79.255	21.422	108.142	0.04632	0.21986
42	86.153	71.457	0.63557	79.013	21.989	108.308	0.04744	0.21949

Temp F	Pressure psia	Pressure psig	Volume cu ft/lb Vapor v_g	Density lb/cu ft Liquid $1/v_f$	Enthalpy** Btu/lb Liquid h_f	Enthalpy** Btu/lb Vapor h_g	Entropy** Btu/(lb) (°R) Liquid s_f	Entropy** Btu/(lb) (°R) Vapor s_g
44	89.177	74.481	0.61448	78.770	22.558	108.472	0.04853	0.21912
46	92.280	77.584	0.59423	78.525	23.129	108.634	0.04967	0.21876
48	95.463	80.767	0.57476	78.280	23.701	108.795	0.05079	0.21839
50	98.727	84.031	0.55606	78.033	24.275	108.953	0.05190	0.21803
52	102.07	87.38	0.53808	77.784	24.851	109.109	0.05301	0.21768
54	105.50	90.81	0.52078	77.534	25.429	109.263	0.05412	0.21732
56	109.02	94.33	0.50414	77.282	26.008	109.415	0.05523	0.21697
58	112.62	97.93	0.48813	77.028	26.589	109.564	0.05634	0.21662
60	116.31	101.63	0.47272	76.773	27.172	109.712	0.05745	0.21627
62	120.09	105.39	0.45788	76.515	27.757	109.857	0.05856	0.21592
64	123.96	109.26	0.44358	76.257	28.344	110.000	0.05966	0.21558
66	127.92	113.22	0.42981	75.996	28.932	110.140	0.06076	0.21524
68	131.97	117.28	0.41653	75.733	29.523	110.278	0.06186	0.21490
70	136.13	121.43	0.40373	75.469	30.116	110.414	0.06296	0.21456
72	140.37	125.67	0.39139	75.202	30.710	110.547	0.06406	0.21422
74	144.71	130.01	0.37949	74.934	31.307	110.677	0.06516	0.21388
76	149.15	134.45	0.36800	74.664	31.906	110.805	0.06626	0.21355
78	153.69	138.99	0.35691	74.391	32.507	110.930	0.06736	0.21321
80	158.33	143.63	0.34621	74.116	33.109	111.052	0.06846	0.21288
82	163.07	148.37	0.33587	73.839	33.714	111.171	0.06956	0.21255
84	167.92	153.22	0.32588	73.560	34.322	111.286	0.07065	0.21222
86†	172.87	158.17	0.31623	73.278	34.931	111.401	0.07175	0.21188
88	177.93	163.23	0.30690	72.994	35.543	111.512	0.07285	0.21155
90	183.09	168.40	0.29789	72.708	36.158	111.619	0.07394	0.21122
92	188.37	173.67	0.28917	72.419	36.774	111.723	0.07504	0.21089
94	193.76	179.06	0.28073	72.127	37.394	111.824	0.07613	0.21056
96	199.26	184.56	0.27257	71.833	38.016	111.921	0.07723	0.21023
98	204.87	190.18	0.26467	71.536	38.640	112.018	0.07832	0.20989
100	210.60	195.91	0.25702	71.236	39.267	112.108	0.07942	0.20956
102	216.45	201.76	0.24962	70.933	39.897	112.192	0.08053	0.20923
104	222.42	207.72	0.24244	70.626	40.530	112.274	0.08161	0.20889
106	228.50	213.81	0.23549	70.317	41.166	112.353	0.08271	0.20855
108	234.71	220.02	0.22875	70.003	41.804	112.427	0.08381	0.20821
110	241.04	226.35	0.22222	69.689	42.446	112.498	0.08491	0.20787
112	247.50	232.80	0.21589	69.369	43.091	112.564	0.08601	0.20753
114	254.09	239.38	0.20974	69.046	43.739	112.626	0.08711	0.20718
116	260.79	246.10	0.20378	68.719	44.391	112.682	0.08821	0.20684
118	267.63	252.94	0.19800	68.388	45.046	112.735	0.08932	0.20649
120	274.60	259.91	0.19238	68.054	45.705	112.782	0.09042	0.20613
122	281.71	267.01	0.18692	67.714	46.368	112.824	0.09153	0.20578
124	288.95	274.25	0.18163	67.371	47.034	112.860	0.09264	0.20542
126	296.33	281.63	0.17648	67.023	47.705	112.891	0.09376	0.20505
128	303.84	289.14	0.17147	66.670	48.380	112.917	0.09487	0.20468
130	311.50	296.80	0.16661	66.312	49.059	112.936	0.09598	0.20431
132	319.29	304.59	0.16187	65.949	49.742	112.949	0.09710	0.20393
134	327.23	312.54	0.15727	65.581	50.432	112.955	0.09823	0.20354
136	335.32	320.63	0.15279	65.207	51.125	112.954	0.09936	0.20315
138	343.56	328.86	0.14843	64.826	51.824	112.947	0.10049	0.20275
140	351.94	337.25	0.14418	64.440	52.528	112.931	0.10163	0.20235
142	360.48	345.79	0.14004	64.047	53.238	112.908	0.10277	0.20194
144	369.17	354.48	0.13600	63.647	53.953	112.877	0.10391	0.20153
146	378.03	363.34	0.13207	63.240	54.677	112.836	0.10507	0.20109
148	387.03	372.33	0.12823	62.825	55.406	112.787	0.10622	0.20065
150	396.19	381.50	0.12448	62.402	56.143	112.728	0.10739	0.20020
152	405.52	390.83	0.12083	61.970	56.887	112.658	0.10856	0.19974
154	415.02	400.32	0.11726	61.529	57.638	112.577	0.10974	0.19926
156	424.68	409.99	0.11378	61.079	58.399	112.485	0.11093	0.19878
158	434.53	419.82	0.11035	60.617	59.168	112.381	0.11213	0.19828
160	444.53	429.83	0.10701	60.145	59.948	112.263	0.11334	0.19776
162	454.71	440.01	0.10374	59.660	60.737	112.131	0.11456	0.19723
164	465.07	450.37	0.10054	59.161	61.538	111.984	0.11580	0.19668
166	475.61	460.93	0.097393	58.651	62.351	111.820	0.11705	0.19611
168	486.34	471.65	0.094309	58.125	63.178	111.639	0.11831	0.19553
170	497.26	482.56	0.091279	57.581	64.019	111.438	0.11959	0.19490
172	508.37	493.67	0.088299	57.019	64.873	111.216	0.12089	0.19425
174	519.67	504.97	0.085365	56.435	65.742	110.969	0.12220	0.19355
176	531.17	516.47	0.082473	55.834	66.643	110.699	0.12356	0.19287
178	542.87	528.18	0.079616	55.205	67.558	110.400	0.12494	0.19212
180	554.78	540.09	0.076790	54.549	68.498	110.068	0.12635	0.19133
182	566.90	552.21	0.073987	53.861	69.456	109.700	0.12780	0.19050
184	579.24	564.54	0.071201	53.136	70.454	109.290	0.12928	0.18960
186	591.80	577.10	0.068421	52.370	71.500	108.832	0.13082	0.18864
188	604.58	589.88	0.065638	51.553	72.579	108.317	0.13242	0.18760
190	617.59	602.89	0.062837	50.677	73.711	107.734	0.13409	0.18646
192	630.84	616.14	0.059999	49.735	74.907	107.067	0.13585	0.18520
194	644.33	629.64	0.057096	48.688	76.154	106.295	0.13773	0.18380
196	658.08	643.38	0.054089	47.518	77.568	105.381	0.13977	0.18218
198	672.08	657.39	0.050912	46.176	79.102	104.270	0.14202	0.18029
200	686.36	671.66	0.047438	44.571	80.883	102.853	0.14460	0.17794
202	700.91	686.21	0.043375	42.476	83.030	100.870	0.14779	0.17475
204	715.75	701.05	0.037545	38.991	86.309	97.280	0.15284	0.16914
204.81	721.91	707.21	0.030525	32.760	91.329	91.329	0.16016	0.16016

* From published data (1964) of E. I. du Pont de Nemours & Co., Inc. Used by permission.
* Inches of mercury below one standard atmosphere.
** Based on 0 for the saturated liquid at −40 F.
† Standard cycle temperatures.